



Monthly Newsletter

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Viruses and Anti-Virus Programs

In This Issue

- Introduction
- Viruses
- Anti-Virus Software

Website Links

[Cyber Security Page](#)

[What is a virus?](#)

[Computer Crime Research Center](#)

[Virus Information](#)

[Sophos](#)

[Virus Total](#)

[F-Secure](#)

[Symantec](#)

Anti-Virus Software

[Sophos](#)

[Sophos Install Instructions](#)

[AVG](#)

[Security Essentials](#)

Contact Us

[Cyber Security](#)

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Introduction

This month's DPS Cyber Security Newsletter focuses on Computer Viruses and Anti-Virus programs. There are a few questions I want to focus this month's training on. They are:

- 1) What exactly is a computer virus?
- 2) How can you get more information about them?
- 3) How can I protect my computer against viruses?
- 4) Is free anti-virus software as good as the pay versions?

Computer Viruses



What exactly is a computer virus? A good definition is "a piece of code that is capable of copying itself and typically has a detrimental effect, such as corrupting the system or destroying data."

Simply put, it is a program that has been designed to do something malicious on a computer system. Often it is done behind the scenes without the user being aware there is something malicious occurring. All computers are vulnerable. It doesn't matter if you have a PC, Mac, Android or Linux computer; all are susceptible to catching a virus. Cell phones, tablets, smart TVs, Xbox One, PS4, your networked refrigerator, or any other network

capable device is vulnerable.

Viruses can be programmed to do all kinds of things. The most common are deleting files, corrupting data, erasing everything on your hard drive, emailing itself out to other people, etc. Basically it is capable of doing anything that it is possible to program it to do.

It is difficult for the average person to identify a virus because viruses are rarely standalone programs or files. They are most often attached to a file and tailgate into a computer through email, instant messages, compromised USB drives or CD/DVDs. Viruses are often disguised as funny images, greeting cards, audio or video files, or any type of file that might be sent through email.

To find out more about viruses, click on the links on the left under **Website Links**.

Anti-Virus Software

The best way to protect any computer from a virus is to keep the Operating System (OS) up to date, have an anti-virus program installed that is up to date, and be wary of email attachments, Internet activity, and anything you connect to your computer.

Other than vigilance, having good anti-virus software is probably the most important thing you can do to protect your computer. There are several to choose



from. Some are free, others are by subscription; and it is debatable which is better. Companies such as Symantec, McAfee and Kaspersky try to convince you that you need to purchase their software to protect your computer. While these are good programs, there are others that are just as good and free for personal use. AVG is a program that can be run on Windows, MAC or Android devices. Microsoft Security Essentials is a free program from Microsoft. Another program,

which is what DPS uses, is Sophos. **Sophos** is free for personal use and will work on MAC or PC. The Cyber Security division strongly recommends this for your personal computers. You can find a link to it on the left side of the newsletter under Anti-Virus Software.

Remember, even with being cautious and doing everything right, it is still possible to get a virus. The only way to ever keep a computer completely safe is to turn it off and lock it in a vault. While that would work, it is definitely impractical. So always be cautious of what you do with your computer.

For more information

For more information and tutorials about this month's topics, please visit the [Cyber Security](#) website on dpsnet. And always remember to "**Do Good Cyber**".

Cyber Security Training Officer

Kirk Burns is the Cyber Security Training Officer for DPS. He has been working in the IT field for over 16 years. Kirk has a BS in Criminal Justice, a BS in Computer Science, and a MS in Digital Forensics. He is a Computer Science professor for Sam Houston State University, holds a current CISSP certification and is a member of the Texas Army National Guard.



If you have further questions about this month's topic or any other security issue, do not hesitate to contact him. He will be happy to assist. You can contact him via email at kirk.burns@dps.texas.gov, on his work phone at 512.424.5183 or on his work cell at 512.466.3151.